

What is claimed is:

1. A printer, comprising:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a first printer position information acquisition which acquires printer position information from the printer position information acquisition and regards this printer position information as first printer position information;

a public key generator which generates a public key with a passphrase containing at least the first printer position information;

a public key storage in which the public key generated by the public key generator is stored, the number of times the public key is allowed to be stored being limited to a predetermined number of times;

a print data receiver which receives print data encrypted with the public key;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as second printer position information;

a private key generator which generates a private key with a passphrase containing at least the second printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

2. The printer according to claim 1, further comprising:

a public key acquisition request receiver which receives a public key acquisition request from a print client; and

a public key transmitter which reads the public key stored in the public key storage and transmits the public key to the print client which has transmitted the public key acquisition

request.

3. The printer according to claim 1, wherein the predetermined number of times is one time.

4. The printer according to claim 3, wherein even if a private key is generated when the public key generator generates the public key, the private key is abandoned.

5. The printer according to claim 4, further comprising a selective print executor which executes a print operation based on the print data when the print data is decrypted with the private key and does not execute the print operation based on the print data when the print data is not decrypted with the private key.

6. A printer, comprising:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a first printer position information acquisition which acquires printer position information from the printer position information acquisition and regards this printer position information as first printer position information;

a printer position information storage in which the first printer position information acquired by the first printer position information acquisition is stored, the number of times the first printer position information is allowed to be stored being limited to a predetermined number of times;

a public key generator which reads the first printer position information from the printer position information storage and generates a public key with a passphrase containing at least the first printer position information;

a print data receiver which receives print data encrypted with the public key;

a second printer position information acquisition which acquires printer position information from the printer position

information acquisition when the print data has been received and regards this printer position information as second printer position information;

a private key generator which generates a private key with a passphrase containing at least the second printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

7. The printer according to claim 6, further comprising a public key acquisition request receiver which receives a public key acquisition request from a print client, wherein

the public key generator generates the public key when the public key acquisition request receiver has received the public key acquisition request.

8. The printer according to claim 7, further comprising a public key transmitter which transmits the public key generated by the public key generator to the print client which has transmitted the public key acquisition request.

9. The printer according to claim 6, wherein the predetermined number of times is one time.

10. The printer according to claim 9, wherein even if a private key is generated when the public key generator generates the public key, the private key is abandoned.

11. The printer according to claim 11, further comprising a selective print executor which executes a print operation based on the print data when the print data is decrypted with the private key and does not execute the print operation based on the print data when the print data is not decrypted with the private key.

12. A printer, comprising:

a printer position information acquisition which acquires

printer position information to specify a place where the printer is installed;

a first printer position information acquisition which acquires printer position information from the printer position information acquisition and regards this printer position information as first printer position information;

a printer position information storage in which the first printer position information acquired by the first printer position information acquisition is stored, the number of times the first printer position information is allowed to be stored being limited to a predetermined number of times;

a public key acquisition request receiver which receives a public key acquisition request to request acquisition of a public key;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the public key acquisition receiver has received the public key acquisition request and regards this printer position information as second printer position information; and

a public key generator which compares the first printer position information stored in the printer position information storage and the second printer position information acquired by the second printer position information acquisition, and which generates a public key with a passphrase containing at least the first printer position information or the second printer position information when the first printer position information and the second printer position information coincide.

13. The printer according to claim 12, further comprising a public key transmitter which transmits the public key generated by the public key generator to a print client which has transmitted the public key acquisition request.

14. The printer according to claim 13, further comprising:
a print data receiver which receives print data encrypted

with the public key;

a third printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as third printer position information;

a private key generator which generates a private key with a passphrase containing at least the third printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

15. The printer according to claim 12, wherein the predetermined number of times is one time.

16. The printer according to claim 15, wherein even if a private key is generated when the public key generator generates the public key, the private key is abandoned.

17. The printer according to claim 16, further comprising a selective print executor which executes a print operation based on the print data when the print data is decrypted with the private key and does not execute the print operation based on the print data when the print data is not decrypted with the private key.

18. A control method of a printer, comprising the steps of:
acquiring printer position information to specify a place where the printer is installed from a printer position information acquisition and regarding this printer position information as first printer position information;

generating a public key with a passphrase containing at least the first printer position information;

storing the generated public key in a public key storage, the number of times the public key is allowed to be stored being limited to a predetermined number of times;

receiving print data encrypted with the public key;

acquiring printer position information from the printer position information acquisition when the print data has been received and regarding this printer position information as second printer position information;

generating a private key with a passphrase containing at least the second printer position information; and

decrypting the received print data with the private key.

19. A control method of a printer, comprising the steps of:
acquiring printer position information to specify a place where the printer is installed from a printer position information acquisition and regarding this printer position information as first printer position information;

storing the first printer position information in a printer position information storage, the number of times the first printer position information is allowed to be stored being limited to a predetermined number of times;

reading the first printer position information from the printer position information storage and generating a public key with a passphrase containing at least the first printer position information;

receiving print data encrypted with the public key;

acquiring printer position information from the printer position information acquisition when the print data has been received and regarding this printer position information as second printer position information;

generating a private key with a passphrase containing at least the second printer position information; and

decrypting the received print data with the private key.

20. A control method of a printer, comprising the steps of:
acquiring printer position information to specify a place where the printer is installed from a printer position information acquisition and regarding this printer position information as first printer position information;

storing the first printer position information in a printer

position information storage, the number of times the first printer position information is allowed to be stored being limited to a predetermined number of times;

receiving a public key acquisition request to request acquisition of a public key;

acquiring printer position information from the printer position information acquisition when the public key acquisition request has been received and regarding this printer position information as second printer position information; and

comparing the first printer position information stored in the printer position information storage and the acquired second printer position information, and generating a public key with a passphrase containing at least the first printer position information or the second printer position information when the first printer position information and the second printer position information coincide.

21. A print system including a printer and a print client, wherein the printer comprises:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a first printer position information acquisition which acquires printer position information from the printer position information acquisition and regards this printer position information as first printer position information;

a public key generator which generates a public key with a passphrase containing at least the first printer position information; and

a public key storage in which the public key generated by the public key generator is stored, the number of times the public key is allowed to be stored being limited to a predetermined number of times,

the print client comprises:

a print data generator which generates print data to be printed by the printer; and

a print data transmitter which encrypts the print data with the public key and transmits the encrypted print data to the printer, and

the printer further comprises:

a print data receiver which receives the print data;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as second printer position information;

a private key generator which generates a private key with a passphrase containing at least the second printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

22. A print system including a printer and a print client, wherein the printer comprises:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a first printer position information acquisition which acquires printer position information from the printer position information acquisition and regards this printer position information as first printer position information;

a printer position information storage in which the first printer position information acquired by the first printer position information acquisition is stored, the number of times the first printer position information is allowed to be stored being limited to a predetermined number of times; and

a public key generator which reads the first printer position information from the printer position information storage and generates a public key with a passphrase containing at least the first printer position information,

the print client comprises:

a print data generator which generates print data to be

printed by the printer; and

a print data transmitter which encrypts the print data with the public key and transmits the encrypted print data to the printer, and

the printer further comprises:

a print data receiver which receives the print data;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as second printer position information;

a private key generator which generates a private key with a passphrase containing at least the second printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

23. A print system including a printer and a print client, wherein the printer comprises:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a first printer position information acquisition which acquires printer position information from the printer position information acquisition and regards this printer position information as first printer position information; and

a printer position information storage in which the first printer position information acquired by the first printer position information acquisition is stored, the number of times the first printer position information is allowed to be stored being limited to a predetermined number of times,

the print client comprises:

a public key acquisition request transmitter which transmits a public key acquisition request to request acquisition of a public key, and

the printer further comprises:

a public key acquisition request receiver which receives the public key acquisition request;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the public key acquisition receiver has received the public key acquisition request and regards this printer position information as second printer position information; and

a public key generator which compares the first printer position information stored in the printer position information storage and the second printer position information acquired by the second printer position information acquisition, and generates a public key with a passphrase containing at least the first printer position information or the second printer position information when the first printer position information and the second printer position information coincide.

24. A printer, comprising:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a public key generator which acquires printer position information from the printer position information acquisition, regards this printer position information as first printer position information, and generates a public key with a passphrase containing at least the first printer position information, when a person with proper authority makes a request;

a public key storage in which the public key generated by the public key generator is stored;

a print data receiver which receives print data encrypted with the public key;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as second printer position information;

a private key generator which generates a private key with a passphrase containing at least the second printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

25. The printer according to claim 24, further comprising:
a public key acquisition request receiver which receives a public key acquisition request from a print client; and
a public key transmitter which reads the public key stored in the public key storage and transmits the public key to the print client which has transmitted the public key acquisition request.

26. The printer according to claim 24, further comprising:
an authentication information requester which requests authentication information of an operator; and
an authentication judgment section which, when authentication information has been inputted, judges whether the inputted authentication information coincides with registered authentication information and, when these two pieces of authentication information coincide, judges that the operator has proper authority.

27. The printer according to claim 26, wherein even if a private key is generated when the public key generator generates the public key, the private key is abandoned.

28. The printer according to claim 27, further comprising a selective print executor which executes a print operation based on the print data when the print data is decrypted with the private key and does not execute the print operation based on the print data when the print data is not decrypted with the private key.

29. A printer, comprising:
a printer position information acquisition which acquires

printer position information to specify a place where the printer is installed;

a first printer position information acquisition and storage which acquires printer position information from the printer position information acquisition, regards this printer position information as first printer position information, and stores the first printer position information in a printer position information storage, when a person with proper authority makes a request;

a public key generator which reads the first printer position information from the printer position information storage and generates a public key with a passphrase containing at least the first printer position information;

a print data receiver which receives print data encrypted with the public key;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as second printer position information;

a private key generator which generates a private key with a passphrase containing at least the second printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

30. The printer according to claim 29, further comprising:

a public key acquisition request receiver which receives a public key acquisition request from a print client, wherein the public key generator generates the public key when the public key acquisition request receiver has received the public key acquisition request.

31. The printer according to claim 30, further comprising a public key transmitter which transmits the public key generated by the public key generator to the print client which has transmitted

the public key acquisition request.

32. The printer according to claim 29, further comprising:
an authentication information requester which requests authentication information of an operator; and
an authentication judgment section which, when authentication information has been inputted, judges whether the inputted authentication information coincides with registered authentication information and, when these two pieces of authentication information coincide, judges that the operator has proper authority.

33. The printer according to claim 32, wherein even if a private key is generated when the public key generator generates the public key, the private key is abandoned.

34. The printer according to claim 33, further comprising a selective print executor which executes a print operation based on the print data when the print data is decrypted with the private key and does not execute the print operation based on the print data when the print data is not decrypted with the private key.

35. A printer, comprising:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a first printer position information acquisition and storage which acquires printer position information from the printer position information acquisition, regards this printer position information as first printer position information, and stores the first printer position information in a printer position information storage, when a person with proper authority makes a request;

a public key acquisition request receiver which receives a public key acquisition request to request acquisition of a public key;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the public key acquisition receiver has received the public key acquisition request and regards this printer position information as second printer position information; and

a public key generator which compares the first printer position information stored in the printer position information storage and the second printer position information acquired by the second printer position information acquisition, and generates a public key with a passphrase containing at least the first printer position information or the second printer position information when the first printer position information and the second printer position information coincide.

36. The printer according to claim 35, further comprising a public key transmitter which transmits the public key generated by the public key generator to a print client which has transmitted the public key acquisition request.

37. The printer according to claim 36, further comprising:
a print data receiver which receives print data encrypted with the public key;

a third printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as third printer position information;

a private key generator which generates a private key with a passphrase containing at least the third printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

38. The printer according to claim 35, further comprising:
an authentication information requester which requests

authentication information of an operator; and

an authentication judgment section which, when authentication information has been inputted, judges whether the inputted authentication information coincides with registered authentication information and, when these two pieces of authentication information coincide, judges that the operator has proper authority.

39. The printer according to claim 38, wherein even if a private key is generated when the public key generator generates the public key, the private key is abandoned.

40. The printer according to claim 39, further comprising a selective print executor which executes a print operation based on the print data when the print data is decrypted with the private key and does not execute the print operation based on the print data when the print data is not decrypted with the private key.

41. A control method of a printer, comprising the steps of:
acquiring printer position information to specify a place where the printer is installed from a printer position information acquisition, regarding this printer position information as first printer position information, and generating a public key with a passphrase containing at least the first printer position information, when a person with proper authority makes a request;
storing the generated public key in a public key storage;
receiving print data encrypted with the public key;
acquiring printer position information from the printer position information acquisition when the print data has been received and regarding this printer position information as second printer position information;
generating a private key with a passphrase containing at least the second printer position information; and
decrypting the received print data with the private key.

42. A control method of a printer, comprising the steps of:

acquiring printer position information from a printer position information acquisition to specify a place where the printer is installed, regarding this printer position information as first printer position information, and storing the first printer position information in a printer position information storage, when a person with proper authority makes a request;

reading the first printer position information from the printer position information storage and generating a public key with a passphrase containing at least the first printer position information;

receiving print data encrypted with the public key;

acquiring printer position information from the printer position information acquisition when the print data has been received and regarding this printer position information as second printer position information;

generating a private key with a passphrase containing at least the second printer position information; and

decrypting the received print data with the private key.

43. A control method of a printer, comprising the steps of:

acquiring printer position information to specify a place where the printer is installed from a printer position information acquisition, regarding this printer position information as first printer position information, and storing the first printer position information in a printer position information storage, when a person with proper authority makes a request;

receiving a public key acquisition request to request acquisition of a public key;

acquiring printer position information from the printer position information acquisition when the public key acquisition request has been received and regarding this printer position information as second printer position information; and

comparing the first printer position information stored in the printer position information storage and the acquired second printer position information, and generating a public key with a passphrase containing at least the first printer position

information or the second printer position information when the first printer position information and the second printer position information coincide.

44. A print system including a printer and a print client, wherein the printer comprises:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a public key generator which acquires printer position information from the printer position information acquisition, regards this printer position information as first printer position information, and generates a public key with a passphrase containing at least the first printer position information, when a person with proper authority makes a request; and

a public key storage in which the public key generated by the public key generator is stored,

the print client comprises:

a print data generator which generates print data to be printed by the printer; and

a print data transmitter which encrypts the print data with the public key and transmits the encrypted print data to the printer, and

the printer further comprises:

a print data receiver which receives the print data encrypted with the public key;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as second printer position information;

a private key generator which generates a private key with a passphrase containing at least the second printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

45. A print system including a printer and a print client, wherein the printer comprises:

a printer position information acquisition which acquires printer position information to specify a place where the printer is installed;

a first printer position information acquisition and storage which acquires printer position information from the printer position information acquisition, regards this printer position information as first printer position information, and stores the first printer position information in a printer position information storage, when a person with proper authority makes a request; and

a public key generator which reads the first printer position information from the printer position information storage and generates a public key with a passphrase containing at least the first printer position information,

the print client comprises:

a print data generator which generates print data to be printed by the printer; and

a print data transmitter which encrypts the print data with the public key and transmits the encrypted print data to the printer, and

the printer further comprises:

a print data receiver which receives print data encrypted with the public key;

a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the print data has been received and regards this printer position information as second printer position information;

a private key generator which generates a private key with a passphrase containing at least the second printer position information; and

a decrypter which decrypts the print data received by the print data receiver with the private key.

46. A print system including a printer and a print client, wherein the printer comprises:

- a printer position information acquisition which acquires printer position information to specify a place where the printer is installed; and

- a first printer position information acquisition and storage which acquires printer position information from the printer position information acquisition, regards this printer position information as first printer position information, and stores the first printer position information in a printer position information storage, when a person with proper authority makes a request,

- the print client comprises:

- a public key acquisition request transmitter which transmits a public key acquisition request to request acquisition of a public key, and

- the printer further comprises:

- a public key acquisition request receiver which receives the public key acquisition request;

- a second printer position information acquisition which acquires printer position information from the printer position information acquisition when the public key acquisition receiver has received the public key acquisition request and regards this printer position information as second printer position information; and

- a public key generator which compares the first printer position information stored in the printer position information storage and the second printer position information acquired by the second printer position information acquisition, and generates a public key with a passphrase containing at least the first printer position information or the second printer position information when the first printer position information and the second printer position information coincide.